

FALL/WINTER 2005

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EVERY HAM!**

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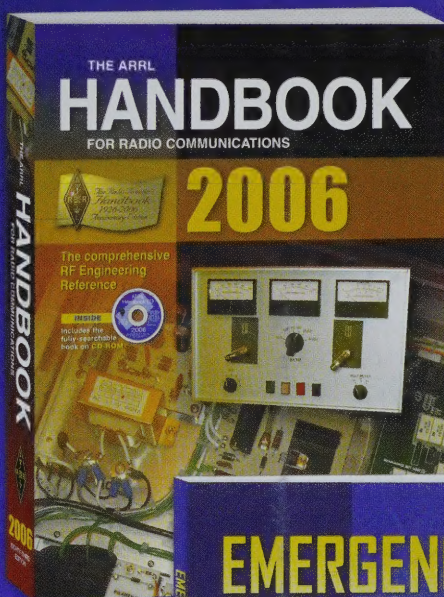
**CD-ROM
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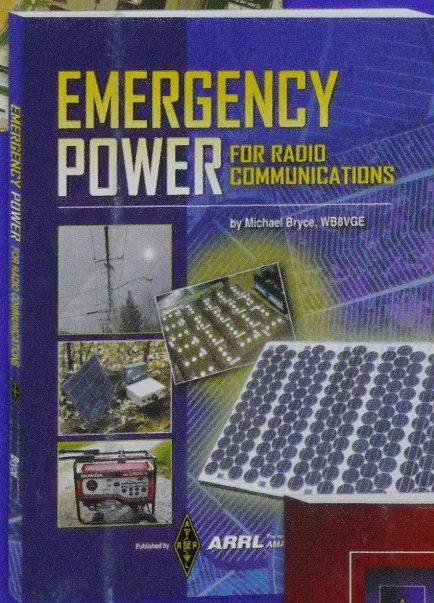
**Station
Resources**

Maps

**Software
and more...**

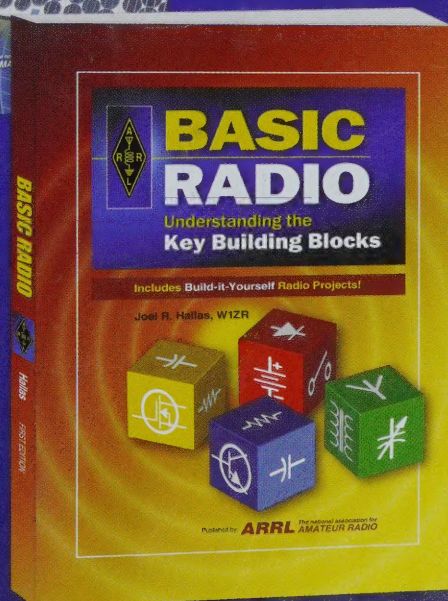


**The ARRL Handbook
2006 Edition
See page 2**



**Emergency
Power for Radio
Communications
See page 1**

**Basic Radio
See page 1**



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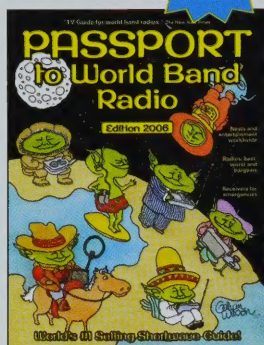
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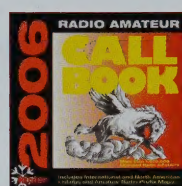
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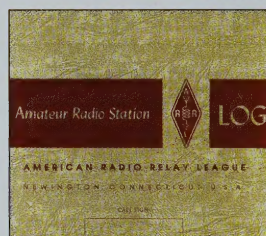
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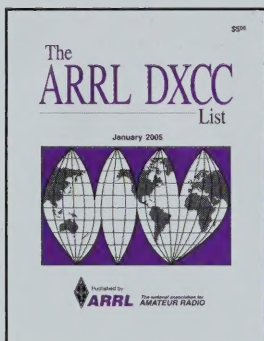
MINILOG

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The ARRL DXCC List

The official source of DXCC awards information.

January 2005 edition, #9353 \$5

Klingenfuss Publications

2006 Super Frequency List on CD-ROM

More than 40,000 entries cover both broadcast and utility stations. Hundreds of fascinating new digital data decoder screenshots! Requires *Windows*.

#9623 \$29.95

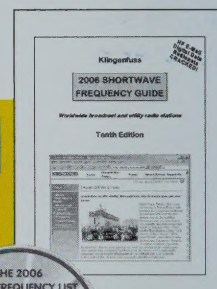
2006 Shortwave Frequency Guide

The latest schedules of worldwide broadcast and utility radio stations.

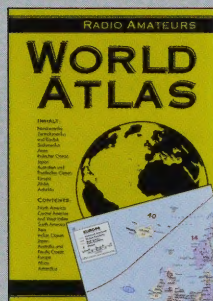
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NEW!

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MAPS



The Radio Amateurs World Atlas

Booklet of full-color maps, call-sign prefixes and more.

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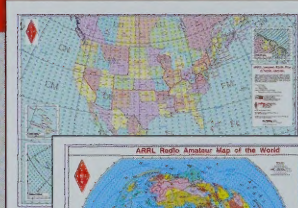
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Grid Locator (US Grid Squares)

#1290 \$1

Polar Map (for OSCAR)

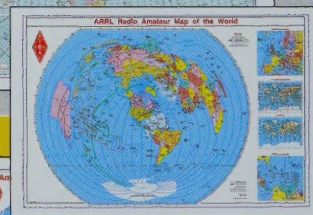
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ARRL Map of North America

27 x 39 inches.

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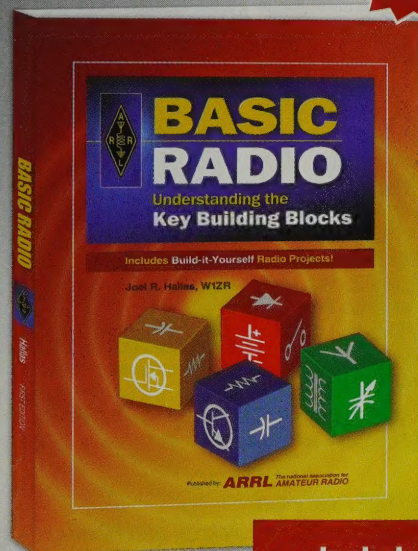
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NEW!



**Includes
Build-it-Yourself
Radio
Projects!**

Basic Radio— Understanding the Key Building Blocks

by Joel Hallas, W1ZR
#9558 \$29.95



**Basic Radio
brings the magic
of radio to life!**

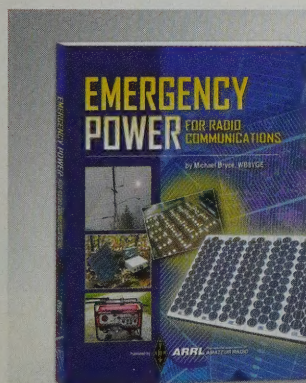
FINALLY—an introduction to radio FOR EVERYONE!—what it does and how it does it.

Basic Radio reveals the key building blocks of radio: **receivers; transmitters; antennas; propagation; radionavigation; and radiolocation.** This book includes simple, build-it-yourself projects to turn theory into practice—helping reinforce key subject matter.

WHO NEEDS THIS BOOK?

Basic Radio builds upon knowledge of elementary electronic concepts as presented in ARRL's *Understanding Basic Electronics* or a similar course. This book will provide the foundation in radio theory and practice necessary for anyone undertaking more advanced topics such as those presented in *The ARRL Handbook for Radio Communications*.

Also available: *Understanding Basic Electronics* (see page 3).



Tools for...

**Emergency or
Backup Power!
Energy Independence!
Portable Energy!**

NEW!

Emergency Power for Radio Communications

by Michael Bryce, WB8VGE
#9531 \$19.95

With this comprehensive guide you can explore the various means of electric power generation—from charging batteries, to keeping the lights on. This book covers the foundation of any communications installation—the power source. Use this book to plan ways to stay on the air when weather or other reasons cause a short-term or long-term power outage. **When all else fails...how will you communicate?** Find ways to reach beyond the commercial power grid. Identify methods for alternative power generation that will work best in your particular situation, perhaps taking advantage of possibilities already on hand.

Contents

- Keeping the Signals on the Air
- Hey, I Am In The Dark: Keeping The Lights On In The Ham Shack With Emergency Power
- Solar Power
- Charge Controllers for PV Systems
- Generators: Gas, Wind and Water
- Load Sizing
- Holding Your Volts: Battery Systems and Storage
- Systems for Emergency Power
- Inverters
- Station Instrumentation
- Safety
- Emergency Practices

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Technical

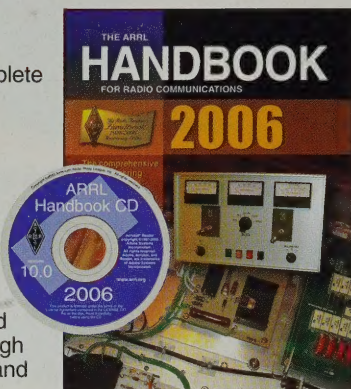
The ARRL Handbook for Radio Communications—2006

Includes
The ARRL Handbook CD
—the fully searchable and complete
book on CD-ROM!

Hardcover. Includes book and
CD-ROM (version 10.0),
#9493 **\$54.95**

Softcover. Includes book and
CD-ROM (version 10.0),
#9485 **\$39.95**

Generations of hams have relied
on **The Handbook** for its thorough
coverage of theory, references and
practical projects.



Complete Table of Contents

- Introduction to Amateur (Ham) Radio
- Activities in Amateur Radio
- Safety
- Electrical Fundamentals
- Electrical Signals and Components
- Real-World Component Characteristics
- Component Data and References
- Circuit Construction
- Modes and Systems
- Oscillators and Synthesizers
- Mixers, Modulators and Demodulators
- RF and AF Filters
- EMI / Direction Finding
- Receivers and Transmitters
- Transceivers, Transverters And Repeaters
- DSP and Software Radio Design
- Power Supplies
- RF Power Amplifiers
- Station Layout and Accessories
- Propagation of RF Signals
- Transmission Lines
- Antennas
- Space Communications
- Web, Wi-Fi, Wireless and PC Technology
- Test Procedures and Projects
- Troubleshooting and Repair

Experimental Methods in RF Design

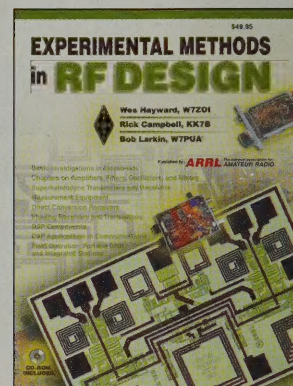
#8799 **\$49.95**

Immerse yourself in the communica-
tions experience by building
equipment that contributes to
understanding basic concepts and
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range, low distortion radio equip-
ment, the use of direct conversion
and phasing methods, and digital
signal processing. Use the models
and discussion to design, build and
measure equipment at both the
circuit and the system level. Laced
with unpublished projects and
illustrated with CW and SSB gear.

CD-ROM included with design software, listings for DSP
firmware, and supplementary articles.

Contents:

- Basic Investigations in Electronics
- Chapters on Amplifiers, Filters, Oscillators, and Mixers
- Super-heterodyne Transmitters and Receivers
- Measurement Equipment
- Direct Conversion Receivers
- Phasing Receivers and Transmitters
- DSP Components
- DSP Applications in Communications
- Field Operation, Portable Gear and Integrated Stations



Introduction to Radio Frequency Design

by Wes Hayward, W7ZOI

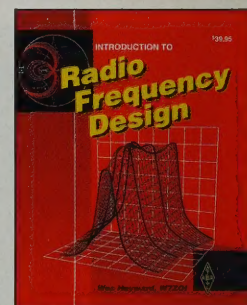
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The fundamental methods of radio
frequency design using mathematics as needed to develop
intuition for RF
circuits and systems. Simple circuit models are used to prepare
you to actually design HF, VHF and UHF equipment.

First ARRL Edition, fourth printing
© 1994-2004.

Contents:

- Low Frequency Transistor Models
- Filter Basics
- Coupled Resonator Filters
- Transmission Lines
- Two-Port Networks
- Practical Amplifiers and Mixers
- Oscillators and Frequency Synthesizers
- The Receiver: an RF System



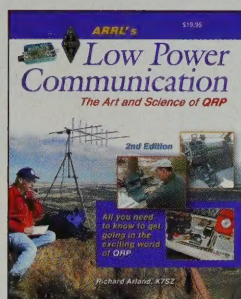
ARRL Publications

ARRL's Low Power Communication —2nd edition

The Art and Science of QRP by
Richard Arland, K7SZ

#9175 \$19.95

Enjoy ham radio on a shoestring budget. Explore kit building. Chase DX. Build antennas. Brush-up on propagation theory, and take a band-by-band operating tour. Low power, low cost—and big fun!

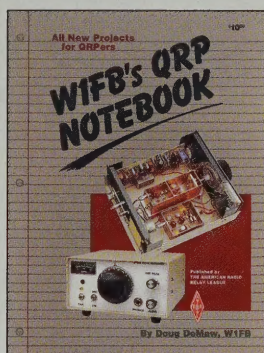


W1FB's QRP Notebook

by Doug DeMaw, W1FB

#3657 \$10

If you're looking for construction projects for QRP transmitters, receivers and accessories, look no further. Experience first-hand the thrill of making contacts using equipment that you built!

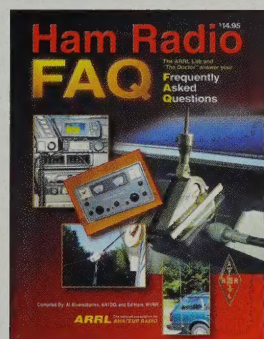


Ham Radio FAQ

The ARRL Lab and "The Doctor" answer your Frequently Asked Questions!

#8268 \$14.95

This book is a compilation of actual questions submitted to ARRL's Technical Information staff on: antennas; station setup and operation; mobile and portable operation; batteries and grounding; and more.



Conference Proceedings

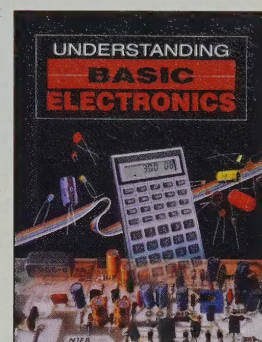
39th Central States VHF Conference—2005 #9477	\$20
24th Digital Communications Conference—2005 #9515	\$20
31st Eastern VHF/UHF Conference—2005 #9442	\$20
Microwave Update—2005 #9566	\$20
Mid-Atlantic VHF Conference—2005 #9523	\$20
Southeastern VHF Society Conference—2005 #9469	\$20

Understanding Basic Electronics

#3983 \$20

The foundations taught in this book will prepare you for more advanced concepts in electronics. The text is written in an easy-to-understand style that nontechnical readers will enjoy. You don't have to be an engineer or a math whiz to enjoy the thrill of experimenting with electronics circuits!

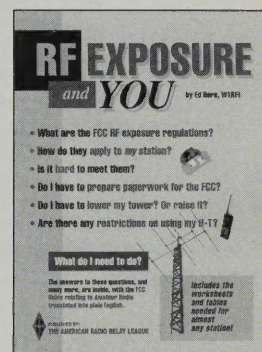
Also available: *Basic Radio—Understanding the Key Building Blocks* (see page 1).



RF Exposure and You

#6621 \$22.95

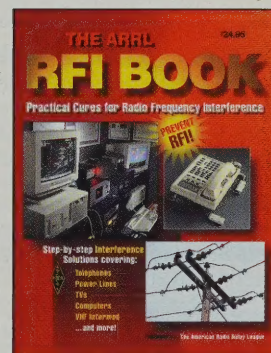
Meet the FCC RF exposure regulations! It's not complicated! Learn how to operate your station safely and legally using simple step-by-step ARRL worksheets and tables.



The ARRL RFI Book

#6834 \$24.95

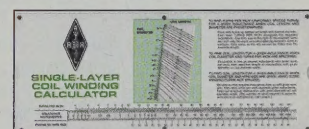
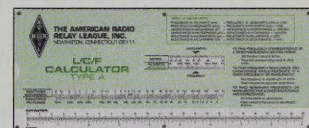
THE authoritative source for practical interference cures: automotive, television, computers, lamps, VCRs, stereos, intermod, telephones, and interference due to power lines. The latest RFI regulations, suppliers, and a complete bibliography have been included.



L/C/F and Single-Layer Coil Winding Calculator

#9123 \$12.95

Use this handy slide rule when you're tinkering with filters, oscillators, impedance matching circuits or antenna coils and traps. Quick and easy circuit calculations.



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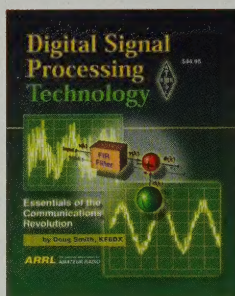
Technical

Digital Signal Processing Technology— Essentials of the Communications Revolution

by Doug Smith, KF6DX

#8195 \$44.95

A comprehensive, readable work for anyone interested in Digital Signal Processing (DSP). The book begins with basic concepts, details digital sampling including fundamental and harmonic sampling, aliasing and mechanisms at play in real data converters, digital filter design, mathematics of modulation and demodulation, digital coding methods for speech and noise-reduction techniques, digital transceiver design, and other current topics. Sufficiently analytical for the advanced engineer or experimenter (with a working knowledge of algebra), while simultaneously affording an understandable picture of this exciting technology.



The ARRL UHF/Microwave Experimenter's Manual

#3126 \$20

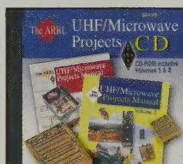
Written for the growing number of radio amateurs who are discovering that there is life on our frequencies above 420 MHz. Technicians and engineers will find this book particularly useful. Information on design and fabrication techniques, propagation, antennas and feed lines, transmission media and much more. 448 pages.



The ARRL UHF/Microwave Projects CD

#8853 \$24.95

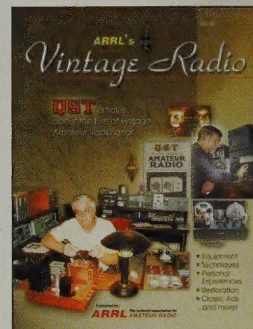
Practical projects, design and construction ideas. Assemble a high performance antenna or transverter without a room full of special test equipment and machine tools. Includes Volume 1 (1994) and Volume 2 (1997) of *The ARRL Microwave Projects Manuals*. Access a variety of tried and tested projects: transverters, preamplifiers, power amplifiers, antennas, test and measurement equipment, and more. CD-ROM requires Microsoft Windows 98 or later, or Macintosh.



ARRL's Vintage Radio

#9183 \$19.95

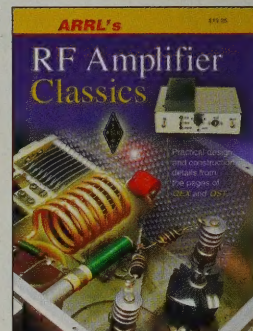
QST articles about the lure of vintage Amateur Radio gear: equipment, techniques, personal experiences, restoration, and classic QST ads. Includes "Old Radio" QST columns by John Dilks, K2TQN and other articles published between 1977 and 2003.



ARRL's RF Amplifier Classics

#9310 \$19.95

Two-dozen projects and articles to help shorten your discovery work. Find practical designs and construction details for classic tube and solid-state amplifiers at power levels from 5 W to 1.5 kW; amps for HF, MF, VHF and microwave. Build safe and reliable amplifiers. Produce loud and clean signals!

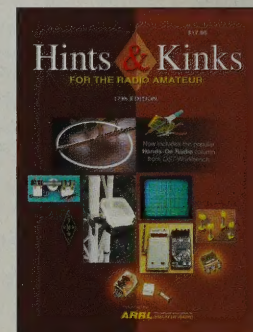


Hints and Kinks for the Radio Amateur

The best of Amateur Radio tips and techniques from the pages of QST—antennas, weekend projects, shack accessories and operating. And, now including articles from the columns **The Doctor is IN** and **Hands-On Radio**. Learn more about a new mode, or find your next construction project!

17th Edition #9361 \$17.95

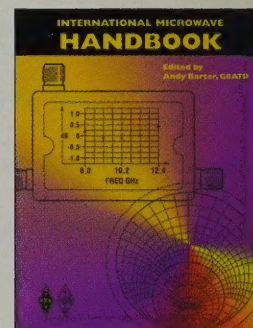
16th Edition #8926 \$15.95



International Microwave Handbook

#8739 \$39.95

Contents: operating techniques; system analysis and propagation; microwave antennas; transmission lines and components; microwave semiconductors and valves; construction techniques; common equipment; test equipment; bands 1.3 GHz, 2.3 GHz, 3.4 GHz, 5.6 GHz, 10 GHz, 24 GHz, and above.



ARRL Publications

Antennas



The ARRL Antenna Book — 20th Edition

In depth coverage of antennas, feed lines, and propagation. Book with CD-ROM. #9043 \$39.95

The ARRL Antenna Book is THE SOURCE for current antenna theory and a wealth of practical, how-to construction projects. Extensively revised, and featuring antenna designs enhanced by the latest advances in computer modeling. Design, build and install any imaginable type of antenna—from the most simple wire varieties, to specialized or highly optimized arrays.

Fully searchable CD-ROM included

Bundled with this edition is the fully-searchable book on CD-ROM and additional software utilities*. The CD-ROM supports Windows and Macintosh systems. At your command is the entire book—every word and every page—PLUS pages of band-by-band propagation tables for locations around the world! Uses the widely popular Adobe® Acrobat® Reader software (included) to view, navigate, search and print from all chapters.

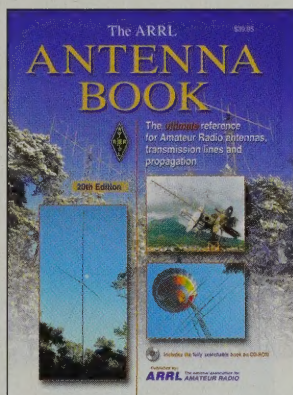
The CD-ROM also includes three updated and improved programs (for Windows):

YW—Yagi for Windows

TLW—Transmission Line for Windows

HFTA—HF Terrain Assessment

EZNECARRL—Antenna Modeling by W7EL

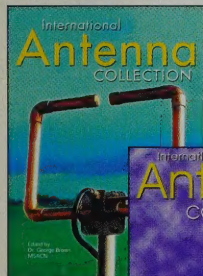


Contents:

- Safety First
- Antenna Fundamentals
- The Effects of the Earth
- Antenna Modeling and System Planning
- Loop Antennas
- Low-Frequency Antennas
- Multiband Antennas
- Multielement Arrays
- Broadband Antennas
- Log Periodic Arrays
- HF Yagi Arrays
- Quad Arrays
- Long Wire and Traveling Wave Antennas
- Direction Finding Antennas
- Portable Antennas
- Mobile and Maritime Antennas
- Repeater Antenna Systems
- VHF and UHF Antenna Systems
- Antenna Systems for Space Communications
- Antenna Materials and Accessories
- Antenna Products Suppliers
- Antenna Supports
- Radio Wave Propagation
- Transmission Lines
- Coupling the Transmitter to the Line
- Coupling the Line to the Antenna
- Transmission-Line and Antenna Measurements
- Smith Chart Calculations

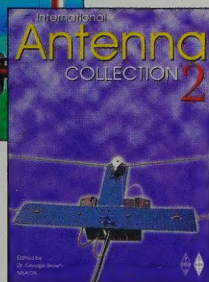
Includes a comprehensive glossary and index

*CD-ROM System Requirements: Microsoft Windows 95 or later; or Apple Power Macintosh computer, Apple System Software version 7.1.2 or later. Additional software utilities are included, for Windows and DOS only.



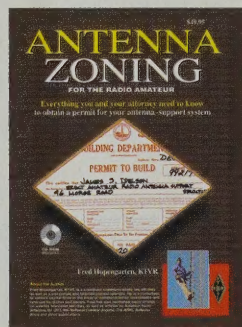
International Antenna Collection

Volume 1, #9156 \$19.95



Volume 2, #9465 \$21.95

Collections of antenna designs from around the world—from 136 kHz to 1.3 GHz, receiving and transmitting, fixed and mobile designs.



Antenna Zoning for the Radio Amateur

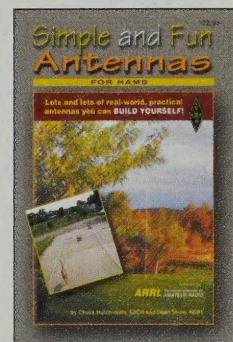
#8217 \$49.95

Proven techniques and strategies that a ham and his or her attorney can use to obtain an antenna-structure permit. CD-ROM included containing case law, sample letters you can customize, and additional precedent setting legal cases and reference material.

Simple and Fun Antennas for Hams

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More than 70 well-tested, fun and entirely useful projects. Hundreds of photos and illustrations. Build your first VHF or HF antenna. Explore dipoles, verticals, beams and more. These antennas work!



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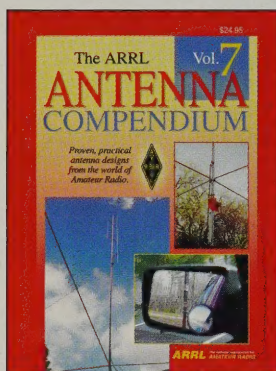
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Antennas

THE ARRL ANTENNA COMPENDIUM Volume 7

#8608 \$24.95

Proven, practical antenna designs from the world of Amateur Radio.



Hooray for antennas! This is the seventh in the very popular **ARRL Antenna Compendium** series. Inside, you'll find articles covering a very wide range of antenna-related topics:

- 30, 40, 80 and 160-Meter Antennas
- Measurements and Computations
- Mobile Antennas
- Multiband Antennas
- Practical Tips
- Propagation and Ground Effects
- Quad Antennas
- Special Antennas
- Stealth Antennas
- Tuners and Transmission Lines
- Vertical Antennas
- VHF/UHF Antennas
- Wire Antennas
- Yagi Antennas

And, this volume includes even more articles on low-band antennas and operating, and great designs for operating on the road—from cars, vans or motor homes.



Online Classes Available!

- Antenna Design and Construction EC-009
- Antenna Modeling EC-004
- Radio Frequency Propagation EC-011

Learn new skills and concepts. Experienced instructors provide online support. **New classes opening regularly.** Pre-register today.

More information at www.arrl.org/cce

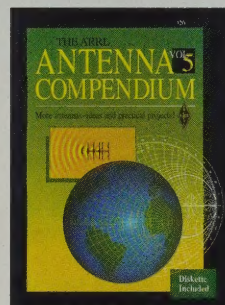
More ARRL Antenna Compendiums Full of ideas and practical projects

Volume 6

#7431 \$22.95

—Includes software

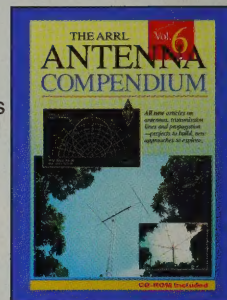
All new articles covering low-band antennas and operating, 10-meter designs, multiband antennas, propagation and terrain assessment. CD-ROM included with propagation prediction software!



Volume 5

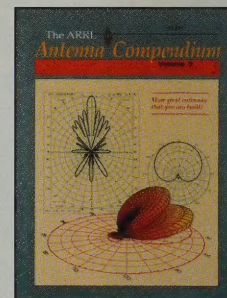
#5625 \$20—Includes software

Enjoy excellent coverage of baluns, an HF beam from PVC, low-band Yagis, quads and verticals, curtain arrays, and more!



Volume 4

is out-of-print



Volume 3

#4017 \$14

Quench your thirst for new antenna designs, from Allen's Log Periodic Loop Array to Zavrel's Triband Triangle. Discover a 12-meter quad, a discone, modeling with MININEC and VHF/UHF ray tracing.



Volume 2

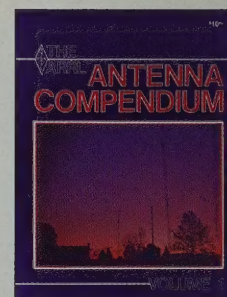
#2545 \$14

Covers a wide range of antenna types and related topics, including innovative verticals, an attic tri-bander, antenna modeling and propagation.

Volume 1

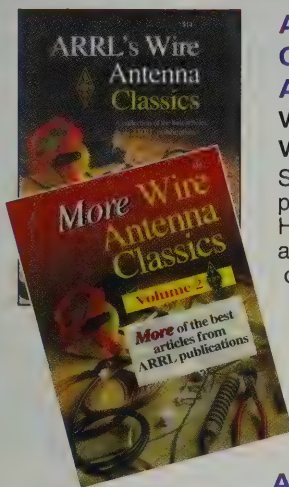
#0194 \$10

The premiere volume includes articles on a multiband portable, quads and loops, baluns, the Smith Chart, and more.



ARRL Publications

The Classics

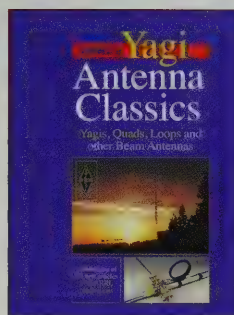


ARRL's Wire Antenna Classics and More Wire Antenna Classics

Volume 1 #7075 \$14

Volume 2 #7709 \$14

So many wire antenna designs have proven to be first class performers! Here are two volumes devoted to wire antennas, from the simple to the complex. Includes articles on dipoles, loops, rhombics, wire beams and receive antennas—and some time-proven classics! An ideal book for Field Day planners or the next wire antenna project at your home station.

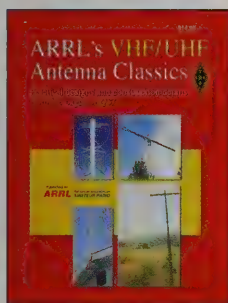


ARRL's Yagi Antenna Classics—Yagis, Quads, Loops and other Beam Antennas

#8187 \$17.95

Includes some of the very best articles written about beam antennas, from ARRL publications. The antennas covered in this book will provide the reader with a historical perspective, new and ambitious ideas, and computer-

optimized designs for all-around best performance. Covers monobanders; multibanders; HF, VHF, and UHF beams from 80 meters to 2304 MHz; computer modeling; towers, masts and guys.

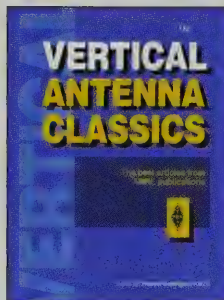


ARRL's VHF/UHF Antenna Classics

Build portable, mobile and fixed antenna designs

#9078 \$14.95

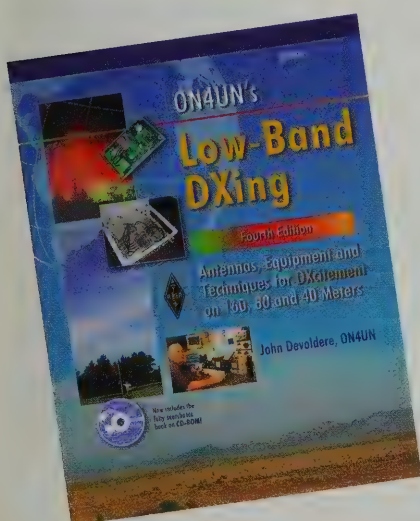
Ground planes, J-poles, mobile antennas, Yagis and more. Build a better antenna for your hand-held radio. Construct a 2-meter Yagi that will rival similar commercial antennas. Build a dual-band vertical for 146 and 445-MHz. The results will be rewarding! Includes projects gathered from the 1980 to 2003 issues of *QST*.



Vertical Antenna Classics

Get Vertical! #5218 \$12

Vertical antennas are everywhere—on cell phones, broadcast towers and portable radios. You'll also see them on the roofs, towers and vehicles from Altoona to Australia. And for good reason! Here are some top-notch performers from ARRL publications, brought together in one book. Vertical antenna theory and modeling, VHF and UHF, HF, directional arrays, radials and ground systems, and more.



ON4UN's Low Band DXing

Antennas, Equipment and Techniques for DXcitement on 160, 80 and 40 Meters

Fourth edition with CD-ROM by John Devoldere, ON4UN

#9140 \$39.95

Includes antenna designs, operating guidelines, and an insider's scoop on low-band DXing. There's something in here for every active low-band operator, contester, and DX chaser! This edition is thoroughly updated with entirely new material on low-band antennas and high-gain transmitting arrays. Includes new insights and new design techniques for receiving antennas and vertical arrays. **CD-ROM included!** This edition is bundled with the fully searchable and complete book on CD-ROM for Windows® and Macintosh® systems. (Also contains additional **ON4UN software** and over 2000 quality photographs.)

Contents:

- Propagation
- DX-Operating on the Low Bands
- Receiving and Transmitting Equipment
- Antenna-Design Software
- Antennas: General, Terms, Definitions
- The Feed Line and the Antenna
- Receiving Antennas
- The Dipole
- Vertical Antennas
- Large Loop Antennas
- Phased Arrays
- Other Arrays
- Yagis and Quads
- Low-Band DXing from a Small Garden
- From Low-Band DXing to Contesting

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Operating

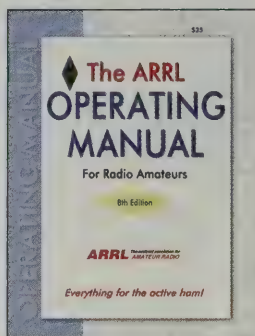
The ARRL Operating Manual

8th Edition

#9132 \$25

The most complete book about Amateur Radio operating:

Rules and regulations, FM operating, CW, PHONE, and many digital modes, VHF and HF digital, meteor scatter and weak signal software applications, DXing, contesting and award hunting, emergency communications, image communications, satellites and more.



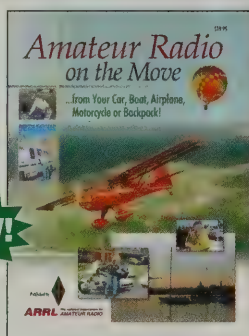
Amateur Radio on the Move

—from Your Car or RV, Boat, Airplane, Motorcycle or Backpack!

#9450 \$19.95

Expert advice for radio operating on the go!

- Radios you can use mobile
- Getting power to run a radio
- Installation tips and safety
- Antennas for mobiling
- Getting rid of the noise
- Operating hints, tips, and software



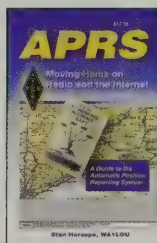
APRS—Moving Hams on Radio and the Internet

by Stan Horzepa, WA1LOU

#9167 \$17.95

A guide to the Automatic Position Reporting System. Track moving objects on maps, display weather statistics and storm warnings, find hidden transmitters or jammers and more. Learn how to setup and operate your APRS station with little more than a VHF radio and computer.

APRS is a registered trademark of APRS Engineering LLC, which reserves all rights to its use for commercial products.

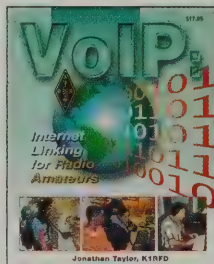


VoIP: Internet Linking for Radio Amateurs

by Jonathan Taylor, K1RFD

#9264 \$17.95

Find out how radio amateurs are using the Internet as the relay between their base stations, handhelds and mobile transceivers. This is a guide to some of the popular VoIP (Voice Over Internet Protocol) systems used by hams: EchoLink, IRLP, eQSO and WIRES-II.

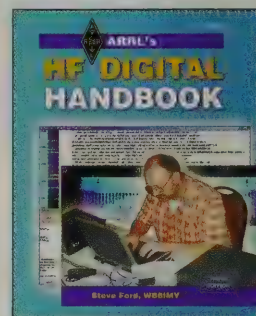


ARRL's HF Digital Handbook—Third Edition

by Steve Ford, WB8IMY

#9159 \$19.95

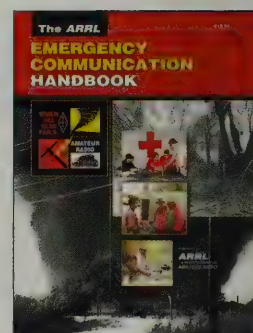
Assemble and operate your own HF digital station. Learn how to use many of the digital modes to talk to the world: PSK31, RTTY, FACTOR, Q15X25 and more!



The ARRL Emergency Communication Handbook

#9388 \$19.95

Intended for hams that volunteer their skills in public service applications (or who are interested in doing so). Includes details on basic emergency communication skills, message handling, ARES, RACES, MARS and other organizations. Understand what to expect, and what to take along.

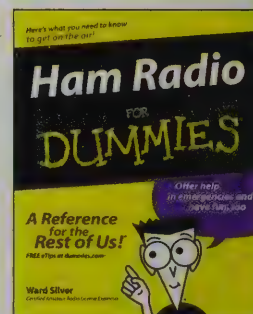


Ham Radio for Dummies

by Ward Silver, N0AX

#9392 \$21.99

Find out about ham radio and join the fun! Here's the scoop, including licensing requirements and how to set up a station. And if you're already licensed, this book will help you start sounding (and feeling) like a pro!



The ARRL FCC Rule Book

13th Edition

#9000 \$12.95

Your complete guide to the Amateur Radio Regulations. Includes the entire text of Part 97 of the FCC rules, with easy to read explanations.



ARRL Publications

The ARRL Repeater Directory® 2005-2006 Thirty-fourth edition

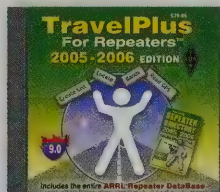


This popular pocket-sized directory is filled with 19,828 listings for VHF/UHF repeaters across the US and Canada. Also includes repeater operating practices, Frequency Coordinator contact information, IRLP (Internet linked) nodes, and more!

#9426 \$10.95

TravelPlus for Repeaters™—version 9.0

Use the integrated maps and repeater data within TravelPlus™ to locate repeaters along your travel route. It's like having the power of *The ARRL Repeater Directory* on your COMPUTER!



Create Route—Trace your travel route on colorful US and Canadian maps, and locate repeaters along the way.

Search Data—Access the entire 2005-2006 ARRL VHF/UHF Repeater Database.

List Repeaters—and IRLP nodes, TV, AM and FM broadcast stations, and NOAA weather radio stations.

Print Reports—Print maps and repeater lists, and export data for radio programming software and more.

Track GPS—Supports real time GPS tracking for display of current position, route and Maidenhead grid square on map (requires GPS device)

#9434 \$39.95

Requires Microsoft Windows.
Upgrade available for previous customers.
Contact ARRL for details.

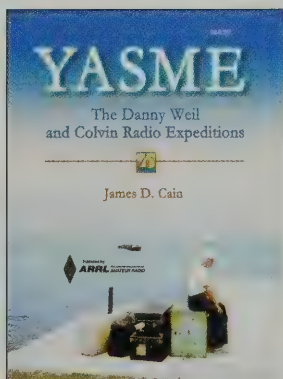
YASME

The Danny Weil and Colvin Radio Expeditions

by James D. Cain, K1TN

#8934 \$24.95

This is the history of three travelers spanning the birth of YASME—the boat that carried young sailor Danny Weil on his first voyages beginning in 1954—and the lives of famed ham radio DXpeditioners Lloyd and Iris Colvin.

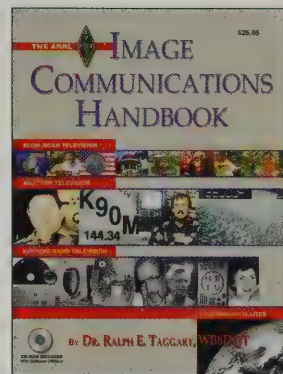


The ARRL Image Communications Handbook

by Dr. Ralph E. Taggart, WB8DQT

#8616 \$25.95

With home computers, widely available software, and gear many hams already own, it's easier than ever to enjoy the imaging modes: Narrow-Band Television (NBTv), Amateur Television (ATV), Slow-Scan Television (SSTV), and Weather Satellite Imaging (WEFAX). Book with CD-ROM.



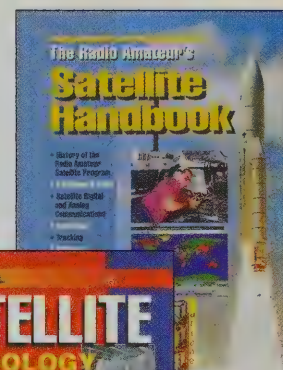
The Radio Amateur's Satellite Handbook

by Martin Davidoff, K2UBC

#6583 \$24.95

The most comprehensive book ever written about amateur satellites: operating, antennas, tracking software, satellite profiles, and more!

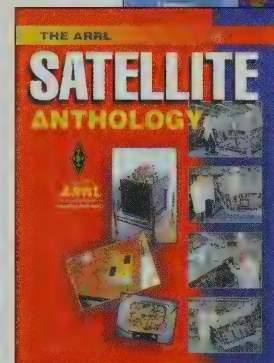
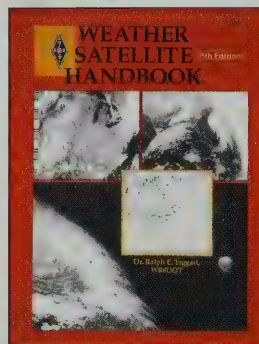
Revised First edition, 4th printing,
© 1998-2003



The ARRL Satellite Anthology

Fifth edition, © 1999

#7369 \$15



Weather Satellite Handbook

Fifth edition, second printing, 1996,
© 1994-1996

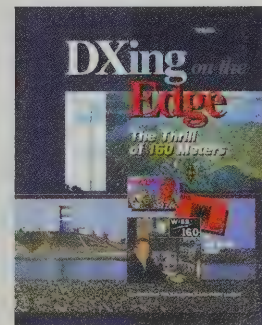
#4483 \$20

DXing on the Edge —The Thrill of 160 Meters

by Jeff Briggs, K1ZM

#6354 \$29.95

Chronicles the accomplishments of Topband pioneers—plus tips for successful 160-meter operating. Audio CD included.



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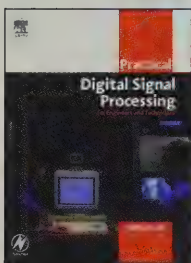
Transmission Line Transformers 4th edition book

#TLT4 \$49

Tremendous coverage of the subject of broadband transmission line transformers. Guanella and Ruthroff as well as hundreds of real transformers.

CD-ROM tutorial

#9088 \$99



Practical Digital Signal Processing

Applications of DSP, from process control to communications. Covers implementation issues, tricks and pitfalls.

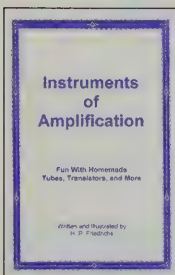
#9331 \$39.99



Tower Climbing Safety & Rescue

#9228 \$29.95

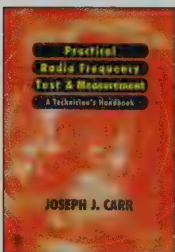
Essential knowledge for all aspiring tower climbers: understanding the dangers, fall protections, hazard assessment, including wind, snow, ice, rain, lightning, and insects, electrical and RF dangers, safety plans and safety equipment, and more.



Instruments of Amplification

#9163 \$19.95

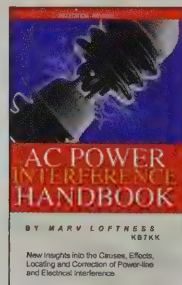
Fun with homemade tubes, transistors, and more. Hands-on details for constructing an amazing array of homebrew amplifying devices.



Practical Radio Frequency Test & Measurement

#7954 \$47.95

Learn the basics of performing tests and measurements used in radio-frequency systems installation, proof of performance, maintenance, and troubleshooting. Provides immediate applications, test set-ups, procedures, and interpretation of results.

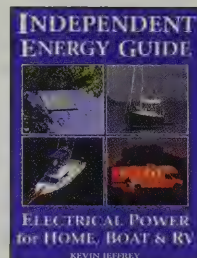


AC Power Interference Handbook—2nd Edition

by Marv Loftness, KB7KK.

#9055 \$29.95

New insights into the causes, effects, locating and correction of power-line and electrical interference.

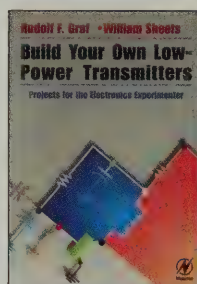


Independent Energy Guide

Electrical Power for Home, Boat & RV

#8601 \$19.95

A resource for understanding and managing power systems. Covers fixed, portable, and mobile energy systems including solar, wind- and water-powered generators, battery chargers, and more.



Build Your Own Low-Power Transmitters

#9458 \$41.95

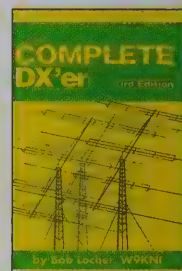
Twenty low-power transmitter projects for the radio experimenter. Applications for broadcasting of AM, SSB, TV, FM Stereo and NBFM VHF-UHF signals. Complete source information is included to help readers find kits and parts for building these fascinating projects.

The Complete DX'er—3rd Edition

by Bob Locher, W9KNI

#9073 \$19.95

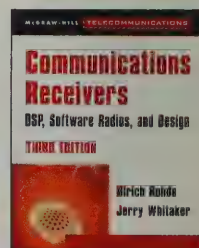
One of the most popular DX books ever written! Covers nearly every significant aspect of DXing. Learn how to REALLY listen, how to snatch the rare ones out of the pile-ups, the excitement of landing the new one, and the agony of defeat.



Communications Receivers —DSP, Software Radios, and Design

#CR3E \$89.95

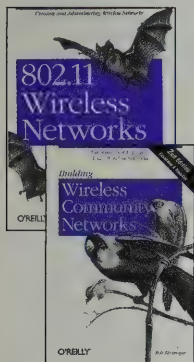
A storehouse of information! Receivers and receiver systems, antennas and antenna coupling, amplifiers and gain control, mixers, frequency, oscillators, demodulation and demodulators, digital signal processing, and much more.



ARRL Publications

These publications have been added to the ARRL Library...so you can add them to yours!

Wireless Networks



802.11 Wireless Networks

#8884 \$44.95

Creating and administering wireless networks. Offers a full spectrum view of 802.11®, from the minute details of the specification, to deployment, monitoring, and troubleshooting.

Building Wireless Community Networks—2nd Edition

#9147 \$29.95

Explore the 802.11b standard (also known as WiFi). Covers new network monitoring tools and techniques, regulations, and IP network administration.

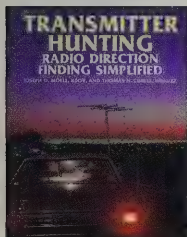


Radio Rescue

by Lynne Barasch.

#9217 \$17

Parents and grandparents will enjoy reading this book to youngsters. Easy-to-read and colorfully illustrated. Tells the story of a boy who sends a Morse code message that leads to the rescue of a family stranded by a hurricane.



Transmitter Hunting—Radio Direction Finding Simplified

#2701 \$24.95

Covers equipment and techniques for HF and VHF radio direction finding. Locate jammers and other sources of malicious interference, engage in sport hunting, even help search-and-rescue groups!



RF Components and Circuits

#8759 \$37.99

A comprehensive introduction to understanding, designing and building RF circuits, including fault-finding and use of test equipment.



Build Your Own Test Equipment

#8604 \$35.95

Building your own test equipment can carry you a long way toward understanding electronics. Build several practical testing devices.

The Secret Wireless War

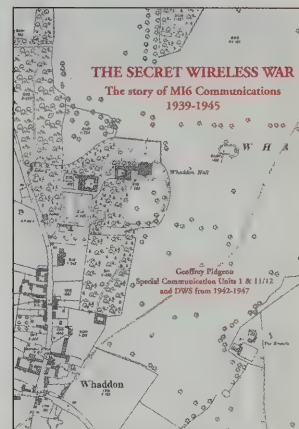
—The Story of MI6 Communications—1939-1945

#9437 \$54.95

Probably the most complete book yet written on Britain's secret radio communications during WWII, with details of places and events that have never before been reported. An extraordinary story that includes hams among those patriots that undoubtedly helped the allied war effort.

Hardback. 416 pages including pictures of secret agent's wireless sets!

Published by UPSO Limited (UK). ARRL is the exclusive US distributor.



- **Basic Technology for the Amateur Radio Enthusiast** (book with video) #BTAR \$39.95
- **DXpeditioning—Behind the Scenes** #DXBS \$29.95
- **DX World Guide** #7199 \$25
- **Electronic Applications of the Smith Chart** #7261 \$69
- **The Electronics of Radio** #ERAD \$55
- **Filter Design by Transmission Zeros (CD-ROM)** #8782 \$99
- **Ham Radio for Dummies** #9392 \$21.99
- **HF Radio Systems & Circuits** #7253 \$89
- **Hiram Percy Maxim** #7016 \$19.95
- **International Antenna Collection**
Volume 1 #9156 \$19.95
Volume 2 #9465 \$21.95
- **International Microwave Handbook** #8739 \$39.95
- **Power Supply Cookbook** #8599 \$41.95
- **Q from A to Z (CD-ROM)** #8773 \$99
- **Radio-Electronic Transmission Fundamentals** #RETF \$75
- **Radio Receiver Design** #RRCD \$89
- **VHF Propagation** #9428 \$15.95

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RSGB Catalogue

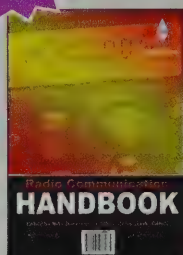


RSGB Radio Communication Handbook 8th Edition

#9642 \$54.95

This extensively revised and comprehensive guide includes many practical projects, basic and advanced, and some classic circuits. New material on micro-processors, surface mount components and computer design of circuits and antennas. Includes the original *RadCom* transceiver project: the 'PIC-A-STAR,' brainchild of Peter Rhodes, G3XJP. **CD-ROM Included!**—containing the complete and fully-searchable book.

NEW!



QRP Basics

#9031 \$29.95

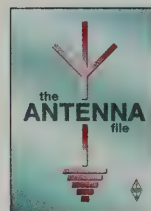
Explore the fun of operating 5 watts and less. Inexpensive and exciting! Improve your QRP station, build a working transmitter or receiver, accessories, and more.



Antenna Toolkit 2

#8547 \$49.95

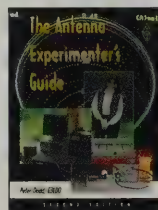
The complete solution for understanding and designing antennas. Book includes a powerful suite of antenna design software (CD-ROM requires Windows). Select antenna type and frequency for quick calculations. 256 pages.



The Antenna File

#8558 \$34.95

The best work from the last ten years of RSGB's *RadCom* magazine. 50 HF antennas, 14 VHF/UHF/SHF, 3 on receiving, 6 articles on masts and supports, 9 on tuning and measuring, 4 on antenna construction, 5 on design and theory. Beams, wire antennas, verticals, loops, mobile whips and more. 288 pages.



The Antenna Experimenter's Guide

#6087 \$34.95

Build and use simple RF equipment to measure antenna impedance, resonance and performance. General antenna construction methods, how to test theories, and using a computer to model antennas. 158 pages.



Practical Wire Antennas 2

#9563 \$24.95

Filled with "how to" information! Complete and easy to understand designs for a wide range of wire antennas: feed lines, dipoles, antennas with tuned feeders, loop antennas, end-fed wires and verticals.

Practical Wire Antennas 1

#R878 \$17



RSGB Prefix Guide —6th Edition

#9046 \$19.95

The complete guide to prefix identification and information. DXCC listings by prefix, award details, and more.



HF Antennas for All Locations

#4300 \$34.95

Design and construction details for hundreds of antennas, including some unusual designs. Don't let a lack of real estate keep you off the air! 322 pages.



Radio & Electronics Cookbook

#RREC \$34.95

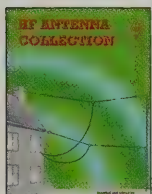
Build up your electronics skills and knowledge with this unique collection of electronic projects, ideal for all levels of experimenters. Quick, rewarding construction projects. 319 pages.



Backyard Antennas

#RBYA \$34.95

With a variety of simple techniques, you can build high performance antennas. Create compact multi-band antennas, end-fed and center-fed antennas, rotary beams, loops, tuning units, VHF/UHF antennas, and more! 208 pages.



HF Antenna Collection

#3770 \$34.95

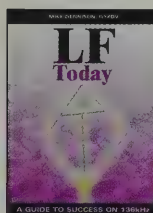
Articles from RSGB's *RadCom* magazine. Single- and multi-element horizontal and vertical antennas, very small transmitting and receiving antennas, feeders, tuners and more. 240 pages.

ARRL Publications



The Low Frequency Experimenter's Handbook

#RLFS \$34.95
Invaluable reference and techniques for transmitting and receiving between 50 and 500 kHz. 112 pages.



LF Today

#9471 \$24.95
A step-by-step guide to success on the 160-190 kHz Experimenter's Band.



VHF/UHF Handbook

#6559 \$34.95
The theory and practice of VHF/UHF operating and transmission lines. Background on antennas, EMC, propagation, receivers and transmitters, and construction details for many projects. Plus, specialized modes such as data and TV. 317 pages.



Practical Projects

#8971 \$24.95
Packed with 50 simple "weekend projects." A wide variety of radio and electronic ideas are covered, including an 80-m transceiver, antennas, ATUs and simple keyers.



Radio Propagation—Principles & Practice

#9328 \$29.95
A guide to radio propagation from HF to VHF, UHF and beyond, and how to make the most of the right time and band. Practical understanding for radio waves and how they travel, the atmosphere, the Sun, ionospheric propagation, ionospheric storms and aurora, propagation prediction, tropospheric propagation, meteor scatter, and space communications.

RadCom Magazine

Subscriptions are available for the UK's biggest and best radio magazine, published by the Radio Society of Great Britain (RSGB). Enjoy 15 monthly issues of **RadCom** for the price of 12 (new members only). And, Airmail Delivery!

For details, contact ARRL: phone 1-888-277-5289
email circulation@arrrl.org



Antenna Topics

#8963 \$34.95
A goldmine of information and ideas!
This book follows the writings of Pat Hawker, G3VA and his "Technical Topics" column, published in *Radcom*. Forty years of antenna design.



Low Power Scrapbook

#LPSB \$19.95
Build it yourself! Low power transmitters, simple receivers, accessories, circuit and construction hints and antennas. Projects from the G-QRP Club's magazine *SPRAT*. 320 pages.



The RSGB Guide to EMC

#7350 \$34.95
Tackle RF interference problems and understand the underlying causes. Covers filters and braid-breakers. Packed with reference data!



RSGB IOTA Directory—40th Anniversary Edition

#9314 \$19.95
Provides the only complete, official listing of IOTA (Islands on the Air) islands with the many recent changes. Everything needed to enjoy this popular worldwide award. Includes a special look back over the last 40 years of IOTA. Fully updated and more pages!



Microwave Projects

#9022 \$29.95
Complete designs and ideas for the microwave experimenter: signal sources, transverters, power amplifiers, test equipment and more.

Technical Topics Scrapbook

1985-1989 edition, #RT85 \$19.95
1990-1994 edition, #7423 \$25.95
1995-1999 edition, #RT95 \$29.95
2000-2004 edition, #9589 \$29.95
RSGB Technical Compendium #RTCP \$34.95
Your Guide to Propagation #7296 \$19.95

CD-ROM Collections



System Requirements:

Microsoft Windows™. 1999, 2000, 2001, 2002, 2003, and 2004 editions support Windows and Macintosh systems, using the industry standard Adobe Acrobat Reader® (included).

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This CD-ROM collection covers volumes of *Communications Quarterly* published from 1990-1999. Gain access to advanced technical topics in articles which cover transmitter, receiver and transceiver projects, theory, antennas, troubleshooting and much more. High quality black-and-white page scans can be read on your computer screen or printed. Quickly **search** for articles by title and author, **select** specific year and issue, and **browse** individual articles and columns. Requires Microsoft Windows™.

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Every page of QST—all the ads, articles, columns and covers—has been scanned as a black-and-white image that can be viewed or printed.

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By Joseph Lunford, N4YG

The Smart Keyer Lite

Want a battery-powered keyer with almost every feature you'll need including long battery life? Look no further!

Some readers are familiar with the Smart Keyer series, designed by the author and marketed during the 1970s and '80s in the pages of QST and other radio journals. Having discontinued that venture several years ago and being recently retired, I decided that all the design work should be made available to anyone wishing to enhance the keyer for their own use. I was still getting calls from hams who wanted to know more about the keyer, so I decided to release the software and an LED. The push buttons are used for playing back messages as well as controlling the keyer modes and up tones. A STATUS LED serves as a visible feedback signal to the operator. Two packs, one for modes and one for transmitter keying, are located on the rear panel.

Design Requirements
The following details apply to the keyer:

- Battery powered (battery life of 1 year, minimum)
- Two message memories, user loadable and nonvolatile
- One repeatable message with a variable delay
- Slottable with variable tone and volume
- Positive or negative keying selection
- Keying mode control (dumbie, dot markers, slash markers)

Communications Quarterly CD-ROM

Communications Quarterly, April 1994 (15 pages)

Figure 1: A graph showing a signal waveform over time. The x-axis is labeled 'TIME' and the y-axis is labeled 'VOLTAGE'. The waveform shows a series of peaks and troughs, with a label 'TOTAL PULSE' pointing to a specific peak.

Figure 2: A screenshot of the QST View software interface showing a magnified view of a page from QST magazine.

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For further information, e-mail your questions to cce@arrl.org, or write to ARRL C-CE, 225 Main Street, Newington, CT 06111.

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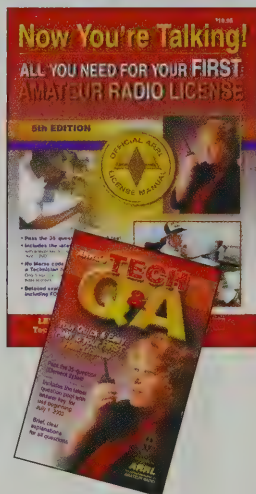
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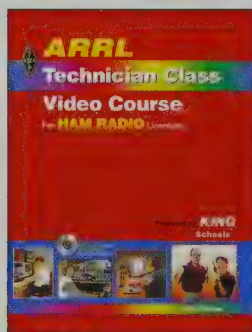
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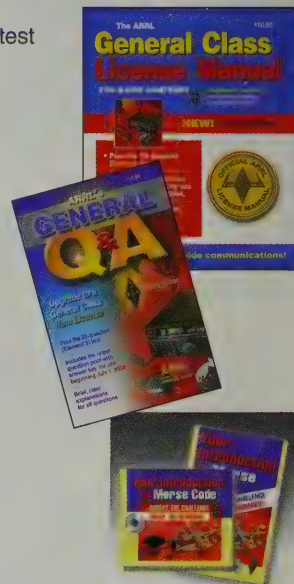
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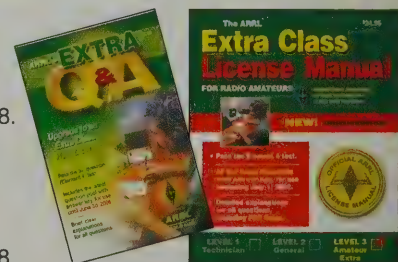
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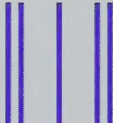


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